

REMARKS/ARGUMENTS

Applicant responds herein to the Office Action of September 20, 2007.

Claims 1, 4-6, 8, 10, 11 and 15-22 are currently pending in the Application.

Claims 1, 4-6, 8, 10, 11 and 15-22 were rejected in the Office Action. Applicant thanks the Examiner for the courtesy extended to the Applicant's attorney during the telephone interview of January 24, 2008. As agreed during the interview, in response to the Office Action, Applicant amends Claims 1 and 8. Reconsideration of the rejection is respectfully requested.

Claims 1, 5, 6 and 12 were rejected in the Office Action under 35 U.S.C. 102(b) as being anticipated by Sato et al. (U.S. Patent Publication No. 2002/0059947). Claims 1, 4-6, 8, 10-11 and 15-22 were rejected under 35 U.S.C. 102(b) as being anticipated by Okuda et al. (U.S. Patent Publication No. 2002/0035762).

As discussed during the telephone interview, Claim 1, as amended, recites a physical cleaning mechanism including a dual fluid spray nozzle generating a jet flow of deionized water droplets and supplying this jet flow to the substrate surface. Further, the dual supply nozzle has a deionized water outlet port ejecting the deionized water towards the surface of the substrate and a gas outlet port blowing a gas onto the deionized water ejected through the deionized water outlet port. Finally, Claim 1 recites a cleaning controller causing the physical cleaning mechanism to generate and supply the deionized water droplets to the substrate surface from the dual fluid spray nozzle at least partly simultaneously with supplying the oxidation liquid to the substrate surface from the oxidation liquid nozzle.

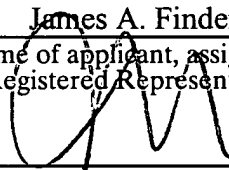
As further discussed during the interview, Claim 8, as amended, recites a step of generating a jet flow of droplets of a deionized water by ejecting the deionized water towards the surface of the substrate through a deionized water outlet port of a dual supply nozzle and blowing a gas through a gas outlet port of the dual supply nozzle onto the deionized water ejected through the deionized water outlet port. Further, according to the recitations of Claim 8, this step of supplying the generated jet flow of droplets of the deionized water from the dual supply nozzle is carried out at least partly simultaneously with supplying the oxidation liquid from the oxidation liquid nozzle. These limitations of the amended Claims 1 and 8 are not disclosed or suggested by the cited prior art.

Specifically, Okuda et al. fails to teach an arrangement in which a jet flow of droplets of the deionized water is supplied through a dual spray nozzle. Instead, nozzle 3009 (shown in Fig. 17 of Okuda) supplying deionized water is a single spray nozzle. Further, nozzle 3009 of Okuda does not include a gas outlet port blowing gas onto the ejected deionized water. Finally, Okuda fails to disclose a controller causing the physical cleaning mechanism to generate and supply the deionized water droplets to the substrate surface from the dual fluid spray nozzle at least partly simultaneously with supplying the oxidation liquid to the substrate surface from the oxidation liquid nozzle. Similarly, with respect to Claim 8, Okuda fails to teach that the step of supplying the generated jet flow of droplets of the deionized water from the dual supply nozzle is carried out at least partly simultaneously with supplying the oxidation liquid from the oxidation liquid nozzle.

The device shown in Sato et al. includes a gas discharging nozzle 100 and a liquid discharging nozzle 200, both being combined within the cleaning mechanism 7. However, there is no separate oxidation liquid supply structure in Sato. Consequently, there is no disclosure or even a suggestion in Sato that the step of supplying the generated jet flow of droplets of the deionized water from the dual supply nozzle is carried out at least partly simultaneously with supplying the oxidation liquid from the oxidation liquid nozzle. In view of this, Claims 1 and 8 and their dependent claims 4-6, 10, 11 and 15-22 are distinguishable from the cited prior art.

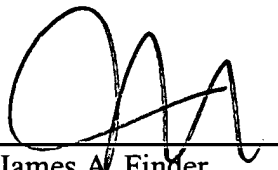
Reconsideration of the rejections and allowance of all pending claims is respectfully requested.

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Respectfully submitted,


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